

1 BEFORE THE STATE OF WASHINGTON
2 ENERGY FACILITY SITE EVALUATION COUNCIL
3

4 In the Matter of Application No. 2004-01:
5 WIND RIDGE POWER PARTNERS, LLC;
6 WILD HORSE WIND POWER PROJECT
7
8
9

DECLARATION OF ARNE NIELSEN IN
OPPOSITION TO THE INTERVENTION
REQUEST OF F. STEVEN LATHROP

10 I, ARNE NIELSEN hereby declare as follows:

- 11 1. My name is Arne Nielsen and my business address is 7660 Whitegate Avenue, Riverside CA
12 92506.
- 13 2. I hold a Bachelors of Science Degree in mechanical engineering. I have been active in the wind
14 industry since 1983. I have worked with numerous major wind turbine manufacturers including
15 Vestas, Bonus, and NEG-Micon in research and development, repair and retrofit,
16 manufacturing, wind farm design, wind analysis, project development, sales, and construction.
17 Since 1991, I have provided wind energy consulting services through Wind Engineers, Inc.
18 (WEI) which specialize in environmental modeling, wind resource assessments, anemometry
19 installation & monitoring, and wind energy project design. WEI has prepared numerous wind
20 reports, project layouts, array-loss assessments, noise and shadow-flicker models, and visual
21 simulation work for projects constructed throughout the USA. Exhibit 1, attached hereto and
22 incorporated by reference as if fully set out, is a résumé of my educational background and
23 employment experience.
- 24
- 25 3. I am the Chief Engineer and President of an engineering consulting firm called Wind Engineers.

DECLARATION OF ARNE NIELSEN

DARREL L. PEEPLES, ATTORNEY AT LAW
325 WASHINGTON ST. NE #440
OLYMPIA, WA 98506
TEL. (360) 943-9528 FAX (360) 943-1611
dpeeples@ix.netcom.com

1 Our firm specializes in the engineering and analysis of wind power projects both up and
2 operating, and also under development around the USA. As the Chief Engineer, I am
3 responsible for the review of any analyses performed and reports prepared by our technical staff.
4 For the Wild Horse Wind Power Project, I personally oversaw the preparation of the visual
5 photo simulations developed for the Application for Site Certification.

- 6 4. The model we used for visual simulations is Wind Pro, produced by EMD of Denmark. It
7 has been developed over the last 15 years and is internationally accepted. Some 560
8 companies and organizations hold licenses to the software, many of which are governmental
9 permitting agencies. A list of their primary licensed customers is available on the software
10 developer's web-site. The visual simulation model used photograph images that are taken in
11 the field at a specific geo-referenced location using a GPS. The computer model positions 3-
12 dimensional projections of the wind turbines into the image with the correct proportions and
13 shading to create a visual simulation of the turbines as would be seen from the specific location
14 where the photograph was taken. The visual simulation or photomontage program contains
15 information on the earth's orbit and rotation relative to the sun. General input parameters are
16 local topography, turbine locations, turbine color and reflection. Input for the individual visual
17 simulations are date and time the photo was taken, camera location and direction the photo was
18 taken. The date and time is used to create shadowed areas on the turbines and to simulate the
19 expected reflection and color hue.
- 20 5. I prepared the visual simulation attached hereto as Exhibit 2, and incorporated by reference
21 as if fully set out. Exhibit 2 used a photographic image taken on October 13, 2004 facing
22 east at F. Steven Lathrop's driveway entrance, just off Robinson Canyon road, approximately
23 1/8 to 1/4 of a mile northwest of his residence. The GPS coordinates were N 47.01423 W
24 120.63922 . Exhibit 2 was developed as described above. It accurately portrays the view of
25 the Wild Horse Wind Power Project from F. Steven Lathrop's property.

1 Dated this ____ day of _____, 2004.

2
3 _____
4 ARNE NIELSEN
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

DECLARATION OF ARNE NIELSEN

DARREL L. PEEPLES, ATTORNEY AT LAW
325 WASHINGTON ST. NE #440
OLYMPIA, WA 98506
TEL. (360) 943-9528 FAX (360) 943-1611
dpeeples@ix.netcom.com